Oahu Civilian E9-1-1

Status Report

December 1, 2018 - December 31, 2018

December 1, 2018 - December 31, 2018

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME CIVILIAN PSAPS - DECEMBER 2018

Source: West Safety Services Viper system

(*) Totals are based on calls to Primary PSAP.

	9-1-1 Primary PSAP Call Volume																
Honolulu City & County PSAPs		Wire			eless		VC	VOIP		Calls With No ALI		Calls	Abandoned Calls		Other Calls		
2018	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	Wireless	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned		No. of Other Calls	% of Total Calls
December	91,409	17,001	18.76%	70,659	77.30%	43.59%	33.71%	3,592	3.93%	9	0.01%	1,230	1.35%	15,118	16.54%	733	0.80%

9-1-1 CALL VOLUME CILILIAN PSAPS - CALENDAR YEAR 2018

	9-1-1 Primary PSAP Call Volume																
Honolul	Honolulu City & County PSAPs		Wireline		Wireless			VOIP Calls		Calls with No ALI		Admii	n Calls	Abandoned Calls		Other Calls	
2018	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	No. of Total Call Received	% of Total Calls
JAN	90,131	18,612	20.65%	68,004	75.45%	46.10%	29.35%	3,380	3.75%	135	0.15%	1,940	2.15%	15,491	17.19%	528	0.59%
FEB	79,937	16,707	20.90%	60,217	75.33%	45.46%	29.87%	2,998	3.75%	16	0.02%	1,738	2.17%	11,746	14.69%	520	0.65%
MAR	83,942	17,359	20.68%	63,359	75.48%	47.28%	28.20%	3,207	3.82%	17	0.02%	1,671	1.99%	11,777	14.03%	459	0.55%
APR	87,434	17,600	20.13%	66,546	76.11%	47.91%	28.20%	3,235	3.70%	52	0.06%	1,840	2.10%	13,911	15.91%	542	0.62%
MAY	88,845	17,520	19.72%	68,055	76.60%	47.71%	28.89%	3,234	3.64%	36	0.04%	1,988	2.24%	14,093	15.86%	538	0.61%
JUNE	85,038	17,076	20.08%	64,935	76.36%	47.07%	29.29%	3,010	3.54%	17	0.02%	1,753	2.06%	13,037	15.33%	567	0.67%
JULY	85,828	17,440	20.32%	65,246	76.02%	47.42%	28.60%	3,124	3.64%	17	0.02%	892	1.04%	12,831	14.95%	629	0.73%
AUG	88,455	17,549	19.84%	67,801	76.65%	48.00%	28.65%	3,061	3.46%	44	0.05%	1,870	2.11%	12,323	13.93%	672	0.76%
SEPT	83,387	17,278	20.72%	63,074	75.64%	46.28%	29.36%	3,010	3.61%	25	0.03%	943	1.13%	11,672	14.00%	644	0.77%
ост	85,323	17,670	20.71%	64,368	75.44%	44.28%	31.16%	3,259	3.82%	26	0.03%	818	0.96%	11,974	14.03%	655	0.77%
NOV	84,464	16,834	19.93%	64,412	76.26%	43.22%	33.04%	3,193	3.78%	25	0.03%	1,034	1.22%	13,178	15.60%	655	0.78%
DEC	91,409	17,001	18.76%	70,659	77.30%	43.59%	33.71%	3,592	3.93%	9	0.01%	1,230	1.35%	15,118	16.54%	733	0.80%
YTD	1,034,193	208,646		786,676				38,303		419		17,717		157,151		7,142	
MON AVG	86,183	17,387	20.20%	65,556	76.05%	46.19%	29.86%	3,192	3.70%	35	0.04%	1,476	1.71%	13,096	15.17%	595	0.69%

NOTE:

- 911 Calls with No ALI for December 2018 = 0.01% Statewide average for 2018 = 0.09%
- Total call volumes does not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.
- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are not included in the Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.

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9-1-1 CALL VOLUME BY AGENCY - DECEMBER 2018

		9-1-1 Call Volume by Agency												
2018		Hor	olulu Poli	ce Departn		Honolulu Fire Department								
2010	No. of Total Calls Received	% of Total Calls	Emergency		Number of Admin Calls	Number of Dropped Calls	No. of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls				
December	80,133	87.66%	20,215	43,711	1,089	15,118	2,324	2.54%	70	24				

		9-1-1 Call Volume by Agency												
2018	Er	mergency M	edical Servic	es	Ocean Safety									
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls						
December	8,170	8.94%	22	57	49	0.05%	49	17						

9-1-1 CALL VOLUME BY AGENCY - CALENDAR YEAR 2018

							9	-1-1 Cal	l Volun	ne by A	gency							
2018		Honolulu Police Department					Honol	Honolulu Fire Department			Emergency Medical Services				Ocean Safety			
	Number of Total Calls Received	% of Total Calls	No. of Emergency Calls	No. of Non Emergency Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls
JAN	77,849	86.37%	19,571	41,680	1,107	15,491	2,881	3.20%	87	67	8,837	9.80%	710	125	36	0.04%	36	16
FEB	68,884	86.17%	18,037	38,149	952	11,746	2,245	2.81%	81	38	8,251	10.32%	669	76	37	0.05%	36	6
MAR	72,926	86.88%	19,213	41,054	882	11,777	2,556	3.04%	92	32	7,963	9.49%	661	164	38	0.05%	36	3
APR	75,908	86.82%	19,865	41,279	853	13,911	2,358	2.70%	115	97	8,583	9.82%	831	113	43	0.05%	41	6
MAY	76,917	86.57%	19,992	41,686	1,146	14,093	2,734	3.08%	89	41	8,613	9.69%	713	84	43	0.05%	40	5
JUNE	73,294	86.19%	19,386	40,054	817	13,037	2,990	3.52%	173	34	8,127	9.56%	710	109	60	0.07%	53	6
JULY	75,132	87.54%	20,242	41,345	714	12,831	2,348	2.74%	120	40	7,654	8.92%	1	64	65	0.08%	57	13
AUG	75,067	84.86%	20,626	41,159	959	12,323	4,417	4.99%	122	69	8,232	9.31%	739	56	67	0.08%	50	17
SEPT	72,453	86.89%	19,278	40,763	740	11,672	2,442	2.93%	135	42	7,799	9.35%	20	43	49	0.06%	48	6
ост	74,374	87.17%	20,709	41,037	654	11,974	2,444	2.86%	107	34	7,814	9.16%	22	74	36	0.04%	35	10
NOV	73,798	87.37%	19,424	40,366	830	13,178	2,252	2.67%	131	36	7,713	9.13%	27	72	46	0.05%	46	3
DEC	80,133	87.66%	20,215	43,711	1,089	15,118	2,324	2.54%	70	24	8,170	8.94%	22	57	49	0.05%	49	17
YTD	896,735		236,558	492,283	10,743	157,151	31,991		1,322	554	97,756		5,125	1,037	569		527	108
MON AVG	74,728	86.71%	19,713	41,024	895	13,096	2,666	3.09%	110	46	8,146	9.46%	427	86	47	0.06%	44	9

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PSAP OPERATION NOTES:

- Total call volumes does not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.
- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are included in the Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.

FOR YOUR INFORMATION

	FYIFor Your Information											
PSAP Operations												
	911 Call Volumes											
PSAP 2018 2017 2016 2015												
Oahu Civilian	1,034,193	72.46%	1,022,818	73.60%	1,009,059	71.93%	1,019,402	70.94%				
Hawaii County	206,648	14.48%	193,166	13.90%	205,412	14.64%	217,768	15.15%				
Maui County	133,869	9.38%	123,685	8.90%	137,333	9.80%	142,952	9.95%				
Kauai County	52,623	3.68%	49,902	3.60%	50,955	3.63%	56,874	3.96%				
Total	1,427,333	100.00%	1,389,571	100.00%	1,402,759	100.00%	1,436,996	100.00%				

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TEXT TO 911 OAHU CIVILIAN PSAPS - CURRENT MONTH - DECEMBER 2018

NOTE:

• Although there is a "Text to 911" plot on the MapFlex, the location of the plot is not reliable. Text to 911 Dispatchers should use their skills to ascertain the exact location of the emergency response.

	TEXT T	O 911 Oah	u Civilian F	PSAPs 2018	3	
Month	Total	HPD	HFD	EMS	os	911 (handled)
January	145	115	3	0	0	27
February	144	131	1	2	0	10
March	170	144	4	5	0	17
April	155	127	2	11	0	15
May	136	122	4	0	0	10
June	168	153	2	1	0	12
July	98	91	2	5	0	0
August	135	123	1	9	0	2
September	114	105	0	0	0	9
October	117	109	1	1	0	6
November	132	115	2	2	0	13
December	146	131	0	0	0	15
YTD	1,660	1,466	22	36	0	136
Monthly Avg.	138.3	122.2	1.8	3.0	0.0	11.3

State of Hawaii	2018							
TEXT TO 911								
Oahu Civilian 1,660								
Hawaii County	Hawaii County 289							
Maui County 224								
Kauai County	78							
*Total	2,251							
*Totals may include PSAP								
training, testing, and 911								
Texting erro	rs							

NOTE:

The 9-1-1 handled texts were incidents in which the Division conducted testing or the texter texted 911 in error.

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911 WIRELESS OAHU CIVILIAN PSAP TESTING – DECEMBER 2018

	OAHU CIVILIAN - DECEMBER 2018												
Date	WSP	Sites Tested	Test Pass/Fail	Comments:									
12/13/2018	Verizon	1	1	Oahu PSAP	Pass	CDMA Test							
12/14/2018	Verizon	3	9	Oahu PSAP	Pass	3 field testers							

NOTES:

- There were four (4) scheduled Wireless 911 Tests for the Oahu Civilian PSAP in December 2018.
- Verizon Wireless has completed migrating their Wireless network database from West to ComTech.



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2. MSAG (MASTER STREET ADDRESS GUIDE)

OAHU CIVILIAN MSAG TRANSACTIONS CURRENT MONTH/YEAR - DECEMBER 2018

OAHU	9-1-1 TRANSACTIONS									
CIVILIAN		MSAG	Al	LI Submitte	ed	Discre	Open ALI epancy Re	cords	Customer	
2018	Total	MSAG (A)	TN CR (B)	ALI DR (C)	VoIP (D)	TNCR	ALI DR	VolP DR	Addresses Affected	
JANUARY	33	14	19	0	0	0	0	0	1,198	
FEBRUARY	10	6	3	1	0	0	0	0	982	
MARCH	168	9	159	0	0	27	0	0	258	
APRIL	15	3	12	0	0	108	0	0	110	
MAY	92	10	82	0	0	393	0	0	276	
JUNE	324	7	316	1	0	338	0	0	610	
JULY	349	23	326	0	0	88	0	0	744	
AUGUST	89	23	66	0	0	479	0	0	389	
SEPTEMBER	417	17	400	0	0	834	0	0	261	
OCTOBER	315	7	308	0	0	1,145	0	0	469	
NOVEMBER	798	4	793	1	0	336	0	0	100	
DECEMBER	244	36	208	0	0	469	0	0	1,128	
TOTAL YTD	2,854	159	2,692	3	0				6,525	
AVG PER MONTH	238	13	224	0	0				544	

Definitions

(A) Master Street Address Guide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.

- (B) **T**elephone **N**umber **C**hange **R**equest Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 199 attached to them which indicates the need for validation.
- (C) Automatic Location Information Discrepancy Record Represents an address discrepancy discovered during a live 9-1-1 call, from a landline. These record corrections are treated with a higher priority and should be processed within 48 hours as a general guideline.
- (D) **V**oice **o**ver **I**nternet **P**rotocol **D**iscrepancy **R**ecord Represents an address discrepancy discovered during a live 9-1-1 call, from a VoIP phone. These record corrections are treated with a higher priority and should be processed within 72 hours as a general guideline per Time Warner Operations Center. MSR tracking effective April 2014.



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OAHU CIVILIAN MSAG CURRENT MONTH NOTES:

A total of two hundred-forty four (244) MSAG transactions were processed in 9-1-1 Net during the current reporting month. Thirty six (36) requests were processed relating to the MSAG database which include: changes to high – low street ranges, combining street records, deletion of invalid records, splitting street records to align with Police, Fire, EMS and Military response areas, and inserting new MSAG records.

There were 1,128 customer ANI/ALI (telephone/address) records updated as a direct result.

205 Dispatchable Location transactions were submitted and 5 were processed by West during the current month.

OAHU CIVILIAN TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

208 Telephone Number Change Request (TN CR) transactions were processed and were corrected in 9-1-1 Net during the current month.

OAHU CIVILIAN OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- There are four hundred-sixty nine (469) Open TN CR Transactions as of December 31, 2018
- Refer to chart in the next section "TNCR Current Status"
- There are no Open ALI-DRs as of December 31, 2018
- There is no Open VoIP DRs as of December 31, 2018

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – DECEMBER, 2018

NOTE:

- 9-1-1 NET is a secure web-based application that provides access to request changes to the MSAG, ALI, TN, and ESN/ELT data supported and maintained by West Safety Services for the Telephone Company (TelCo).
- TNCRs are not requests to change Telephone Numbers (TNs); however, it is a corrective process within 9-1-1 NET to modify
 location information associated with an Automatic Location Identification (ALI) record to a valid MSAG address for 9-1-1
 purposes.

	PSAP 9-1-1 Telephone Number Location Change Request						
	(Telephone Number Change Request (TNCR) Status)						
PSAP	TOTAL TNCR RECORDS SUBMITTED BY AKIMEKA OPENED TNCRS PENDING FURTHER ACTION BY WEST SAFETY SERVICES OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES TOTAL UNOPENED TNCR RECORDS						
OAHU CIVILIAN	469	7	208	254			

STATUS

TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1 **PENDING STATUS** - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and are pending investigation whether the request is valid or invalid, and/or whether the request requires additional information to validate.

REFERRED STATUS - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and the request requires additional information to validate. The West Safety Services Data Analysts assigns this status to a TNCR and the request is referred to the telephone service providers for further research.

TOTAL UNOPENED TNCR RECORDS STATUS - The request is submitted by Akimeka on behalf the PSAP; however, processing by the 9-1-1 Database Service Provider Data Analyst has not begun.

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DISPATCHABLE LOCATION - STATUS AS OF - DECEMBER 2018

NARRATIVE:

Oahu Civilian

During the August 2015 State of Hawaii 911 Board meeting, Akimeka provided a "State of Hawaii PSAPs Proposed ALI Compliancy with FCC 15-9" presentation. Based on the 9-1-1 Board's confirmation to add the "Dispatchable Location" information into the ALI database, Akimeka researched the format standards of each pertinent field, and tested the delivery of the data to the PSAP. After a few configuration adjustments (eliminating the TelCo comments field from appearing on the ALI Screen), Akimeka standardized an additional information data format to proceed with this project.

The "Dispatchable Location" data is entered into the "Driving Directions" field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the "Exact" field should a 911 call be received from that telephone number. The Windward Mall will be the pilot location starting in March 2018.

There were 205 transactions submitted and 5 processed in December 2018.

Dispatchable Location						
2018	Common Name Place	TNCR*	Transactions			
Quarter 4	MSAG Address	Transactions Submitted	Processed**			
Quarter 3 Carryover		1,316	459			
	Koko Marina Center, 7192 Kalanianaole Hwy, Hawaii Kai	0	103			
	Hawaii Kai Towne Center, 333 Keahole St, Hawaii Kai	0	66			
October	Aina Haina Shopping Center, 820 W Hind Dr, Aina Haina	0	5			
	Kahala Mall, 4211 Waialae Ave, Kaimuki	173	273			
	Ala Moana Center, 1450 Ala Moana, Ala Moana	400	0			
	Kahala Mall, 4211 Waialae Ave, Kaimuki	122	482			
	Ala Moana Center, 1450 Ala Moana, Ala Moana	183	278			
November	Koko Marina Center, 7192 Kalanianaole Hwy, Hawaii Kai	0	11			
	Hawaii Kai Towne Center, 333 Keahole St, Hawaii Kai	8	22			
	Aina Haina Shopping Center, 820 W Hind Dr, Aina Haina	2	0			
	Kahala Mall, 4211 Waialae Ave, Kaimuki	5	5			
December	Ala Moana Center, 1450 Ala Moana, Ala Moana	200	0			
Total		1093	1245			
YTD Total		2,409	1,704			

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT – DECEMBER 2018

Akimeka received the Automatic Location Identification (ALI) records from Spectrum (formally known as Charter Communications) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka has access to these ALI Records, Akimeka is researching and verifying the VoIP records against an MSAG valid address and the GIS data. This research is a validation of the ALI Record to ensure that the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The analysis of the database records indicates that there are invalid MSAG addresses utilized by the VoIP Provider. These records are being identified, and will be sent back to Spectrum for corrective action.

		Spectrum (Cha Database Veri		Project	
	TOTAL	TOTAL RECORDS	TOTAL	NON	PERCENT
	RECORDS	MATCHING &	RECORDS	MATCHING	COMPLETED
PSAP	SUBMITTED BY	VERIFIED WITH	NOT	RECORDS	
ISAI	SPECTRUM	911 DATABASES	MATCHING	CORRECTED	
	(A)	(B)		BY AKIMEKA	
				(C)	
HAWAII County	22,044	21,638 (98%)	406	406	100.00%
KAUAI County	8,936	8,695 (97%)	241	241	100.00%
MAUI County	18,256	17,517 (96%)	739	739	100.00%
OAHU Cilivian	87,414	85,329 (98%)	2,085	2,085	100.00%
OAHU Military	3,663	710 (19%)	2,953	2,953	100.00%
TOTAL	140,313	**133,889	6,424	6,424	100.00%

^{*} Spectrum VoIP Database received on June 21st, 2017

^{**} Akimeka provided VoIP Records with Latitude/Longitude coordinates

(A)	VoIP Database records submitted by Spectrum to Akimeka for research and MSAG address validation.
(B)	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Spectrum. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verifcation Process Completed.

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BANDWIDTH 9-1-1 VOIP DATABASE VERIFICATION PROJECT - DECEMBER 2018

Akimeka received the Automatic Location Identification (ALI) records from Bandwidth which is a Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka has access to these ALI Records, Akimeka researched and verified the VoIP records against an MSAG valid address and the GIS data. This research is a validation of the ALI Record to ensure that the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The analysis of the database records indicates that there were invalid MSAG addresses utilized by the VoIP Provider. These records were identified, and sent back to Bandwidth for corrective action.

Akimeka will update the chart below as we receive updated ALI records from Bandwidth.

*Bandwidth								
9-1-1	9-1-1 VoIP Database Verification Project **(Updated)							
	TOTAL	TOTAL NEW	TOTAL	NON	PERCENT			
	RECORDS	RECORDS	RECORDS	MATCHING	COMPLETED			
PSAP	SUBMITTED BY	VERIFIED WITH	NOT	RECORDS				
FSAF	BANDWIDTH	911 DATABASES	MATCHING	CORRECTED				
	(A)	(B)		BY AKIMEKA				
				(C)				
HAWAII County	545	85	0	0	100.00%			
KAUAI County	306	41	0	0	100.00%			
MAUI County	914	222	1	1	100.00%			
OAHU Cilivian	4,065	888	1	1	100.00%			
OAHU Military	56	7	0	0	100.00%			
TOTAL	5,886	1,243	2	2	100.00%			

^{*}Bandwidth VoIP Database received on April 5th, 2018

(A)	VoIP Database records submitted by Bandwidth to Akimeka for research and MSAG address validation.
	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Bandwidth. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verifcation Process Completed.

^{**}Updated Bandwidth VoIP Database received on September 6th, 2018

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – DECEMBER 2018

MAPPING LAYERS UPDATED (PART I)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

		OAHU (CIVILIAN PSAPS			
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks			
CI	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)					
	12/28/2018	(Spatially corrected ten (10) Address Points in Aiea.			
	12/26/2018		Added sixty two (62) Address Points at Aiea Lani Estates in Aiea.			
	12/26/2018		Spatially corrected fifty two (52) Address Points in Aiea.			
		12/21/18	, , , ,			
	12/21/2018		Spatially corrected four (4) Address Points in Makakilo.			
	12/21/2018		Created forty (40) new Address Points in Makakilo.			
	12/20/2018		Spatially corrected fourteen (14) Address Points in Makakilo.			
	12/20/2018		Created seventy (70) new Address Points in Makakilo.			
	12/20/2019		Corrected Address to forty six (46) Address Points at Barbers Point			
	12/20/2018		Elementary in Kalaeloa.			
	12/20/2018		Added Building Number to two hundred eleven (211) Address Points in			
			Ewa Beach.			
	12/19/2018		Spatially corrected fifty-one (51) Address Points in Ewa Beach.			
	12/19/2018		Created one hundred and sixty-two (162) new Address Points in Ewa			
			Beach.			
Address Points	12/19/2018		Spatially corrected two (2) Address Points in Ewa Beach.			
riddiess i onits	12/19/2018		Spatially corrected one (1) Address Point in Mokuleia.			
	12/19/2018		Added builing number to fifty two (52) Address Points in Mokuleia.			
	12/18/2018		Spatially corrected seventeen (17) Address Points in Ewa Beach.			
	12/18/2018		Created twenty-four (24) new Address Points in Ewa Beach.			
	12/18/2018		Corrected ESN to one (1) Address Point in Aina Haina.			
	12/18/2018		Corrected ESN to one (1) Address Point in Aliamanu.			
	12/18/2018		Corrected ESN to nine (9) Address Point in Honolulu.			
	12/18/2018		Corrected ESN to three (3) Address Point in Kahala.			
	12/18/2018		Corrected ESN to nine (9) Address Points in Kaimuki.			
	12/18/2018		Corrected ESN to one (1) Address Point in Sunset.			
	12/18/2018		Corrected ESN to one (1) Address Point in Punchbowl.			
	12/18/2018		Corrected ESN to one (1) Address Point in Manoa.			
	12/18/2018		Corrected ESN to one (1) Address Point in Maili.			
	12/18/2018		Corrected ESN to one (2) Address Point in Kapolei.			
	12/18/2018		Corrected ESN to thirty (3) Address Point in Kalihi.			
	12/18/2018		Corrected MSAG Community Code to five (5) Address Points in Moanalua.			

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MAPPING LAYERS UPDATED (PART II)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

	OAHU CIVILIAN PSAPS					
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks			
CI	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)					
	12/17/2018	(Elste)	Spatially corrected fouteen (14) Address Points in Ewa Beach.			
	12/17/2018		Spatially corrected nineteen (19) Address Points in Kapolei.			
	12/17/2018		Added fifty-six (56) new Address Points in Ewa Beach.			
	12/17/2018		Added one hundred and twenty-six (126) new Address Points in Kapolei.			
	12/14/2018		Spatially corrected ten (10) Address Points in Ewa Beach.			
	12/14/2018		Spatially corrected twenty-five (25) Address Points in Kapolei.			
	12/14/2018		Created seven (7) new Address Points in Kaolei.			
	12/13/2018		Spatially corrected eight (8) Address Points in Ewa Beach.			
	12/13/2018		Added twenty-five (25) new Address Points in Ewa Beach.			
	12/13/2018		Spatially corrected sixteen (16) Address Points in Kapolei.			
	12/13/2018		Added one-hudred and twelve (112) new Address Points in Kapolei.			
	12/13/2018		Spatially corrected six (6) Address Points in Kalihi.			
	12/12/2018		Added twelve (12) Address Points in Kunia.			
	12/11/2018		Added eighty-five (85) new Address Points in Ewa Beach.			
	12/11/2018		Spatially corrected ten (10) Address points in Ewa Beach.			
Address Points	12/11/2018		Added eight (8) new Address Points in Kapolei.			
riddicoo i onito	12/11/2018		Spatially corrected seventeen (17) Address Points in Kapolei.			
	12/11/2018		Added one hundred ten (110) Address Points at Kulalani Village in Kapolei.			
	12/11/2018		Spatially corrected twenty (20) Address Points in Kapolei.			
	12/10/2018		Spatially corrected four (4) Address Points in Aiea.			
	12/10/2018		Corrected Location Name to one (1) Address Point in Kapolei.			
	12/10/2018		Spatially corrected eight (8) Address Points in Ewa Beach.			
	12/10/2018		Corrected Location Name to one (1) Address Point in Kalaeloa.			
	12/10/2018		Spatially corrected one (1) Address Point in Kalaeloa.			
	12/10/2018		Corrected street type to fifteen (15) Address Points in Kalaeloa.			
	12/10/2018		Added ninety eight (98) Address Points in Kalaeloa.			
	12/10/2018		Added thirteen (13) New Address Points in Maili.			
	12/10/2018		Updated location name on one (1) Address Point in Maili.			
	12/10/2018		Added fifty-two (52) new Address Points in Nanakuli.			
	12/10/2018		Updated location name on one (1) Address Point in Nanakuli.			
		12/07/18				

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MAPPING LAYERS UPDATED (PART III)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks			
CI	RITICAL 9-1-1 I		Y LAYERS FOR DISPATCH & RESPONSE d Alphabetically)			
	12/7/2010	(Liste)				
	12/7/2018		Spatially corrected one (1) Address Point in Haleiwa.			
	12/7/2018		Updated Apartment on one (1) Address Point in Haleiwa.			
	12/7/2018 12/7/2018		Added six (6) new Address Points in Haleiwa. Spatially corrected three (3) Address Points in Makaha.			
	- ' '					
	12/7/2018		Added six (6) new Address Points in Makaha.			
	12/7/2018		Updated apartment on one (1) Address Point in Makaha.			
	12/7/2018		Added sixty-one (61) new Address Points to Mokuleia.			
	12/7/2018		Spatially corrected one (1) Address Point in Waialua.			
	12/7/2018		Added Location Name to one (1) Address Point in Waianae.			
Address Points	12/6/2018		Corrected ESN, ZipCode, TMK, and MSAGCommunity fields on two			
	12/6/2018		thousand and twenty eight (2,028) address points. Spatially corrected nine (9) Address Points in Haleiwa.			
	12/6/2018		Spatially corrected time (9) Address Points in Haula. Spatially corrected ten (10) Address Points in Haula.			
	12/6/2018		Added location name to one (1) Address Point in Hauula.			
Address Foliats	12/6/2018		Spatially corrected three (3) Address Points in Laie.			
	12/6/2018		Updated apartment to one (1) Address Point in Laie.			
	12/6/2018		Created one (1) New Address Point in Laie.			
	12/6/2018		Spatially corrected one (1) Address Point in Punaluu.			
	12/6/2018		Created one (1) New Address Point in Sunset.			
	12/6/2018		Spatially corrected one (1) Address Point in Sunset.			
	12/6/2018		Created twenty-six (26) New Address Points in Sunset.			
	12/5/2018		Added building number to forty one (41) Address Points in Aiea.			
	12/5/2018		Spatially corrected fifteen (15) Address Points in Aiea.			
	12/5/2018		Spatially corrected one (1) Address Point in Honolulu.			
	12/5/2018		Added Location Name to one (1) Address Point in Honolulu.			
			Added thirty nine (39) Address Points at Queen Kaahumanu Elementary			
	12/5/2018		School in Honolulu.			
Airports						
AMR Response Areas						
Bridges						
Building Footprints						
Bus Stops						

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MAPPING LAYERS UPDATED (PART IV)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS							
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
CI	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)						
Churches							
Coastal Names							
Coastline							
Common Places							
Correctional Facilities							
Emergency Callboxes							
Emergency Operation							
Centers							
Emergency Shelters							
ESZ/ESN							
Fire Beats							
Fire Districts							
Fire Response Areas							
Fire Stations							
Food & Beverage							
Gas Stations							
Gate Codes							
Government Buildings							
Harbors							
Helipads							
Hiking Trails							
Hospitals							
Hydrants							
Hyrdology Layers							
Incident Response Areas							
Lodging							
Major Roads							
Medic Beats							
Medic Districts							
Medic Response Areas							
Medic Stations							
Medical Facilities							

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MAPPING LAYERS UPDATED (PART V)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

	OAHU CIVILIAN PSAPS						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks				
CI	RITICAL 9-1-1 F	PUBLIC SAFET	Y LAYERS FOR DISPATCH & RESPONSE				
		(Liste	d Alphabetically)				
Milepost Markers							
Military Response Areas							
MSAG Communities							
Net Junctions							
Ocean Rescue Boundaries							
Ocean Safety							
Parcels							
Parks							
Parks Polygon							
	12/28/2018		Spatially corrected five (5) Points of Interest in Pearl City.				
	12/28/2018		Spatially corrected one hundred four (104) Points of Interests in Aiea.				
	12/27/2018		Spatially corrected thirty two (32) Points of Interest in Aiea.				
		12/21/18					
	12/13/2018		Spatially corrected sixty six (66) Points of Interest in Kalihi.				
	12/10/2018		Spatially corrected four (4) Points of Interest in Aiea.				
Points of Interest		12/07/18					
	12/4/2018		Added one (1) Common Place in Hawaii Kai.				
	12/4/2018		Added one (1) Common Place in Waikiki.				
	12/4/2018		Spatially corrected twenty-six (26) Points of Interest in Ewa Beach.				
	12/3/2018		Corrected name to two (2) Points of Interest in Kalaeloa.				
	12/3/2018		Corrected spatially two (2) Points of Interest in Kalaeloa.				
	12/3/2018		Corrected spatially eighty-one (81) Points of Interest in Ewa Beach.				
Police Beats							
Police Districts							
Police Response Areas							
Police Stations							
Post Offices							
Schools							
	12/27/2018		Corrected full street name to eight (8) segments in Kapolei.				
	12/27/2018		Corrected street name to seventeen (17) segments in Kapolei.				
Street Centerlines			Corrected speed to one hundred ninety seven (197) segments—all city				
	12/27/2018		streets in Airport that were previously 30 MPH have been updated to 25				
			MPH.				

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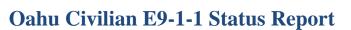
December 2018

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MAPPING LAYERS UPDATED (PART VI)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks			
Cl	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)					
	12/27/2018	(Else)	Corrected speed to four hundred twenty two (422) segments—all city streets in Nuuanu that were previously 30 MPH have been updated to 25 MPH.			
		12/21/18				
	12/20/2018		Added five (5) segments in Pearl City.			
			Corrected range to six (6) segments in Kalaeloa.			
	12/17/2018		Added two (2) hiking trails in Manoa.			
	12/17/2018		Added one (1) hiking trail in Punchbowl.			
	12/17/2018		Corrected range to one (1) segment in Airport.			
	I 17/13/7018 I I		Corrected speed to thirty two (32) segments—all city streets in Moanalua that were previously 30 MPH have been updated to 25 MPH.			
	12/13/2018		Corrected speed to sixty four (64) segments—all city streets in Moanalua T that were previously 30 MPH have been updated to 25 MPH.			
0 0 1	12/13/2018		Corrected speed to seventy three (73) segments—all city streets in Aliamanu that were previously 30 MPH have been updated to 25 MPH.			
Street Centerlines	12/13/2018		Corrected speed to sixty (60) segments—all city streets in Mapunapuna that were previously 30 MPH have been updated to 25 MPH.			
	12/13/2018		Corrected speed to one hundred sixty one (161) segments—all city streets in Salt Lake that were previously 30 MPH have been updated to 25 MPH.			
	1 17/13/7018 1 1		Corrected speed to thirty eight (38) segments—all city streets in Radford T that were previously 30 MPH have been updated to 25 MPH.			
	12/13/2018		Corrected speed to seventy eight (78) segments—all city streets in Halsey T that were previously 30 MPH have been updated to 25 MPH.			
	12/13/2018		Corrected speed to forty four (44) segments—all city streets in Miller Park that were previously 30 MPH have been updated to 25 MPH.			
	12/13/2018		Corrected speed to fifty one (51) segments—all city streets in Catlin Park that were previously 30 MPH have been updated to 25 MPH.			
	12/12/2018		Corrected range on four (4) Street Centerlines in Ewa Beach.			
	12/12/2018		Flipped segments to two (2) Street Centerlines in Kaneohe.			



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MAPPING LAYERS UPDATED (PART VII)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS						
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks			
CI	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)					
	12/12/2018		Corrected range on two (2) Street Centerlines in Kapolei.			
			Flipped segment on one (1) Street Centerline in Manoa.			
	12/12/2018					
	12/12/2018					
	12/12/2018		Corrected one way too one (1) segment in Airport.			
	12/12/2018					
	12/12/2018		Corrected street owner to nine (9) segments in Kunia.			
	12/10/2018		Corrected street type to fifteen (15) segments in Kalaeloa.			
	,,,	12/07/18	(
	12/7/2018		Flipped segment on one (1) Street Centerline in Waialua.			
	12/6/2018		Corrected speed to one thousand two hundred seventy eight (1278)			
			segments—all city streets in Kalihi that were previously 30 MPH have			
			been updated to 25 MPH.			
	12/6/2018		Corrected speed to sixty six (66) segments—all city streets in Hale Moku			
			that were previously 30 MPH have been updated to 25 MPH.			
			Corrected speed to thirty three (33) segments—all city streets in			
Street Centerlines	12/6/2018		Hokulani that were previously 30 MPH have been updated to 25 MPH.			
	12/4/2018 A		Added four (4) Street Centerline segments in Kapolei.			
	12/4/2018		Added eight (8) Street Centerline segments in Ewa Beach.			
	12/4/2018		Corrected range to one (1) segment in Ewa Beach.			
	12/3/2018		Corrected MSAG Code Left to one (1) segment in Airport.			
	12/3/2018		Corrected MSAG MUN Code to nineteen (19) segments in Airport.			
	12/3/2018		Corrected MSAG Code Left to one (1) segment in Catlin Park.			
	12/3/2018		Corrected MSAG Code Left to two (2) segments in Kaimuki.			
	12/3/2018		Corrected MSAG Code Left to one (1) segment in Mililani.			
	12/3/2018		Corrected MSAG Code Left to two (2) segments in Kahala.			
	12/3/2018		Corrected MSAG Code Right to one (1) segment in Mililani.			
	12/3/2018		Corrected MSAG Code to one (1) segment in Mapunapuna.			
	12/3/2018		Corrected MSAG Code to one (1) segment in Kalaeloa.			
	12/3/2018		Corrected MSAG Code to four (4) segments in Kapolei.			
	12/3/2018		Corrected MSAG Community Left to one (1) segment in Kaimuki.			
	12/3/2018		Corrected range to one (1) segment in Moanalua Valley.			

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MAPPING LAYERS UPDATED (PART VIII)

9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

OAHU CIVILIAN PSAPS					
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)					
Subdivisions					
Tow Jurisdictions					
Tsunami Evacuation Zones					
Tsunami Heights					
Waste Water Plants					
	12/24/2018		Added 9 (nine) sectors per Verizon CRS.		
		12/21/18			
	12/18/2018		Updated three (3) sectors in the Oahu database per T-Mobile Audit.		
WSP Cell Sectors	12/17/2018		Added three (3) sectors per Verizon CRS.		
	12/10/2018		Added three (3) sectors per T-MOBILE CRS.		
		12/07/18			
	12/6/2018		Added six (6) sectors per ATT CRS.		
	12/24/2018		Added three (3) towers per Verizon CRS.		
WSP Cell Towers		12/21/18			
	12/17/2018		Added one (1) cell tower per Verizon CRS.		
	12/10/2018		Added one (1) tower per T-MOBILE CRS.		
		12/07/18			
	12/6/2018		Added two (2) towers per ATT CRS		

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GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVES

GIS KEY ACTIVITIES/UPDATES

• GIS Key activities include the events such as GIS deliverables, meetings, agreements, etc.

Date	Key Activities/Updates			
12/7/2018	Delivered Street Centerlines, Common Places, Police Beats, MSAG			
	Communities to HPD for Motorola CAD.			
12/7/2018	Delivered Street Centerlines, Address Points, Fire Response Areas, Medic			
	Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for			
	TriTech CAD.			
12/7/2018	Delivered Address Points, Street Centerlines, Common Places, Fire Response			
	Areas, Medic Response Areas, Ocean Safety Response Areas, AMR Response			
	Areas to AMR for TriTech CAD.			
12/7/2018	8 Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response			
	Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu			
	MapFlex system for HPD, HFD, EMS, and Ocean Safety.			
12/21/2018	Delivered Street Centerlines, Common Places, Police Beats, MSAG			
	Communities to HPD for Motorola CAD.			
12/21/2018	Delivered Street Centerlines, Address Points, Fire Response Areas, Medic			
	Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for			
	TriTech CAD.			
12/21/2018	Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response			
	Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu			
	MapFlex system for HPD, HFD, EMS, and Ocean Safety.			

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HONOLULU POLICE DEPARTMENT TRITECH CAD PROJECT

On October 10, 2018, Akimeka participated along with the CAD project team of the Honolulu Police Department on a teleconference GIS kickoff meeting with the TriTech CAD Company. Items that were discussed were GIS requirements for the CAD and RMS systems.

On October 25, 2018, Akimeka's initial delivery of 11 GIS layers to the TriTech FTP site included: Address Points, Airports, Coastline, Fire Response Areas, Medic Response Areas, MSAG Communities, Parks, Police Beats, State Boundary, Streams, and Street Centerlines.

Two spreadsheets describing the layers were also provided on the FPT site.

MAPFLEX SYSTEM

During the month of December 2018, the MapFlex system received updates manually as a result of MapFlex having several issues pertaining to the automated upload processes.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, West, was implemented across the State of Hawaii, in the below narrative there is some information pertaining to all of the Hawaiian Islands. For a record of historical information regarding the MapFlex system, please see MSRs during the 2015 through 2017 years.

- 1. Akimeka delivered GIS data to the MapFlex system on the following dates in December 2018
 - a. **Hawaii County** December 4th, 2018 and December 18th, 2018
 - b. **Maui County** December 5th, 2018 and December 19th, 2018
 - c. **Kauai County** December 6th, 2018, and December 20th, 2018
 - d. Honolulu December 7^{th} , 2018, and December 21^{st} , 2018

MAPFLEX ISSUES

Oahu Civilian

Below is a detailed list of issues regarding the MapFlex systems throughout the State of Hawaii.

DATE	ISSUE	DESCRIPTION	STATUS
8/2016	Wireless Addresses	MapFlex system began displaying wireless information incorrectly. MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.	Partially Resolved (Nov 2016) The overriding ALI with updated Lat/Longs from the GIS is still occurring
11/2016	Phase I Display	Wireless Phase I calls plotting at centroid of coverage area and landing in the ocean. After installation of new MapFlex version to correct other issues, the configurations for Wireless Phase I were not set up properly by West, in which the mapping did not point to the correct information in MapFlex.	Partially Resolved (Dec 2016) According to PSAPs, it's not fully resolved. The icon of the tower still doesn't plot for Phase I.

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11/2016	Wireless	Sprint calls coming across with unusually high confidence.	Pending
	Confidence	Coordination is taking place with Sprint and West. West	
		provides the PDE services for Sprint.	
3/22/2017	ArcGIS Address	The locators in MapFlex have a configurations which does	Pending
	Locator	not include ESNs. A reported issue has occurred with the	A new SP 5.4 update by West is
		Sheraton in Waikiki. The address locator does not	aimed to correct this issue.
		differentiate between the Sheraton hotel and the surf break	
		and plots on the surf break. The bigger issue is that this same	
		issue will occur with complexes that have same primary	
5/17/2017	W ID C II DI W	address.	D CH D I I
5/17/2017	VoIP Calls Plotting	Recognized in late April and early May 2017, the PSAPs	Partially Resolved – the
	Incorrectly	have been receiving several VoIP calls which are plotting in the incorrect locations. After further research it was	Lat/Longs are no longer being plotted in MapFlex due to a
		determined that it is because MapFlex is configured to plot	software release.
		the received Lat/Long. The problem is that these are not	software release.
		always maintained properly and that ideally the system	
		should first choose to match with the GIS data based on the	
		provided address.	
		During the September 20, 2017 PSAP conference call, HT	
		relayed there was confirmation that the Time Warner	
		records were in fact passing through the West FMCC.	
5/17/2017	Landline Calls	It was determined that for normal landline calls, the X/Y	West is looking into this (May -
	Producing X/Y on	coordinates are being sent. The PSAPs have asked where	June 2017)
	calls	these are being generated and why would they be sent for	
		landline calls.	
5/23/2018	Phase I & Phase II	Phase I calls received at the Kihei Maui PSAP are displaying	Pending
	coverage area	a circular circumference area rather than a cone shaped	
		directional coverage. Phase II calls are not plotting the COF	
7/24/2010	*	meters correctly.	2 "
5/24/2018	Incorrect Addresses	MapFlex system began displaying incorrect addresses in the	Pending
		bubble display when an Address Point is right mouse clicked	
		to see information by the PSAPs. However, the address in	
6/27/2018	Moving Labels	the data is still correct as shown on the left hand side. It was brought up during the PSAP teleconference with	Pending
0/2//2016	Widving Labers	Hawaiian Tel and West that the Hawaii Fire Department	rending
		submitted a trouble ticket regarding the parcel labels. When	
		the base map is checked on for viewing the owner's names	
		on the parcel layer, the names of some of the parcels will	
		follow and leave their parcel as the map is panned following	
		streets. This problem was also recreated at the Hawaii	
		Police Department.	
	1	1 1	1

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STREET UTILITY CHECK

This is an ongoing project to correct the errors identified. A comparison of the raw CAD generated report from the Street Check Utility was performed between the Street Centerline GIS data on December 1, 2018 and December 31, 2018.

Street Utility Check								
	First Report 06/01/13	11/30/2018	12/31/2018	Improvements/Corrections				
Total Number of GIS Records	26,602	31,238	31,301	Increased by 63 records				
	Errors Identified							
Zero Errors	5,112	0	1	Increased by 1 record				
Low > High Errors	3	0	0	No change				
Mixed Parity Errors	1	0	1	Increased by 1 record				
Changed Parity Errors	105	0	2	Increased by 2 records				
Address Gap Errors	2,629	0	6	Increased by 6 records				
Address Overlap Errors	423	4	7	Increased by 3 records				
Flipped Link Errors	1,030	4	19	Increased by 15 records				
Total Errors	9,303	8	36	Increased by 28 records				

In addition to Akimeka's internal validation tools, Akimeka will continue to utilize the various CAD reports to further identify and correct the multitude of discrepancies in the GIS data. This is an ongoing and routine process which Akimeka has been using to improve the accuracy of the GIS data for Public Safety.

As a result of the GIS efforts within the military jurisdictional areas covered primarily by the RDC, the GIS data is undergoing several changes within the bases which will cause a fluctuation in the Street Check results, which is to be expected. Any discrepancies that are identified will be corrected in the following GIS deliverable.

TRITECH CAD ADDRESS POINT PROJECT

During the month of February 2018 after several months of discussion and testing, the Address Points were loaded into TriTech and moved into the HFD/EMS shared CAD. Since that time, HFD, EMS, and Akimeka have been working closely together to identify and update subaddress location for various complexes around Oahu. Several hundred new address points have been added to the GIS as a result of this collaboration.

During the month of March 2018, there were only a couple minor updates communicated and one issue identified with addresses within close proximity to the H1 freeway.

- 1. Akimeka ran an analysis and added routing information into more than 27,000 Address Points to resolve the geotolerance within TriTech.
- 2. During the month of April 2018, it was identified that the issue related to the H1 Fwy still remain and after investigation it was determined that a component within the SQL server for TriTech requires a potential update to allow for routing to be overridden based off of the Routing ID information.
 - a. A trouble ticket has been opened with TriTech who is further investigating the potential correction, outside of the GIS
- 3. During the month of December 2018, there were no further developments.

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SPEED LIMIT UPDATES

Beginning in April 2017, and now that the Street Centerline data has achieved not only an above 98% synchronization rating but also a high degree of accuracy in the spatial accuracy, a new project to correct speed limits has begun. The project is beginning in Waimanalo and continuing in a counter-clockwise patter around the island of Oahu. The initial focus is on Highways, Freeways, and other major roads, but also not limited to additional corrections, especially those which are immediately identified to positively impact vehicle routing, etc.

All updates are shared directly with the PSAPs and the agency most affected (positively) is HFD since they actively use vehicle routing and this will assist in better CAD unit recommendations. During each GIS deliverable, a list of updates are being provided.

- 1. During the 2017 year, from April 2017 to December 2017, more than 4,200 street segments were updated to reflect posted speed limit restrictions from Waimanalo to Nanakuli.
- 2. During January 2018, 1,187 segments were updated in Maili, Nanakuli, and Kapolei.
- 3. Throughout the month of February 2018, 2,025 speed limits were updated in Ewa Beach, Makakilo, and Iroquois.
- 4. During March 2018, 3,743 street segments were updated across Makakilo, Kunia, Iroquois, Pearl Harbor, Waipahu, Wahiawa, Waialua, and Mililani.
- 5. During the month of April 2018, Akimeka held on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure the routing is correct (see TriTech Address Points Project narrative above for further information on routing items).
- 6. During the month of May 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (see TriTech Address Points Project narrative above for further information on routing items).
- 7. During the month of June 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (see TriTech Address Points Project narrative above for further information on routing items).
- 8. During the month of July 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (refer to TriTech Address Points Project narrative above for further information on routing items).
- 9. During the month of August 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (refer to TriTech Address Points Project narrative above for further information on routing items).
- 10. During the month of September 2018, Akimeka resumed the speed limit updates. 1,081 street segments were updated across Waipio and Pearl City.
- 11. During the month of October 2018, Akimeka continued the speed limit updates. 1,094 street segments were updated across Aiea, McGrew Point (McGrew Pt) and Pearl City Peninsula (PC PEN).
- 12. During the month of November 2018, Akimeka continued the speed limit updates. 265 street segments were updated across Halawa and Moanalua Valley.
- 13. During the month of December 2018, Akimeka continued the speed limit updates. 1,978 street segments were updated across Hale Moku, Hokulani, Salt Lake, Mapunapuna, Radford Terrace, Halsey Terrace, Miller Park, Catlin Park, and Kalihi.

December 1, 2018 - December 31, 2018

HONOLULU EMS RESPONSE AREA

During the month of December 2017, EMS requested a high resolution map of the Honolulu Response Area which will likely be divided into 5 separate response areas to better support the EMS operations and ambulance response times.

- 1. With HPD's approval, Akimeka prepared a map of the requested area and provided to EMS on December 12, 2017.
- 2. Considering the additional response areas will certainly require the creation of additional ESZ/ESNs; HPD, EMS, and Akimeka will be coordinating so that the project can be mapped out on a timeline so that the changes can take place while maintaining an above 99% synchronization level between GIS, MSAG, and ALI.
- 3. An operational consideration has already begun a discussion, in that the military ESNs will likely be reallocated to a new numbering so that both civilian and military responses will have enough ESNs to support their individual operations.
- 4. During the first half of 2018, there will be further discussion on the creation of the new Response Areas, allocation of military ESNs, and create of new ESZs/ESNs.

AMR-H

The American Medical Response Hawaii (AMR-H) Project is a joint venture by the Honolulu Emergency Services Department (HESD) to provide accurate address and location information to its other public safety agencies. This project is to ensure AMR-H is utilizing the same address and location information as the other HESD public safety agencies, and to ensure compliance with National 9-1-1 directives such as the FCC Docket 15-9 regarding location accuracy. The intent is to provide the same accurate location information to all the HESD public safety response agencies to help reduce response times to the 9-1-1 caller.

NOTE:

This work is performed under a separate contract.

AMERICAN MEDICAL RESPONSE (AMR) HAWAII PROJECT

Since the start of the GIS deliverable schedule with AMR, there have been no reported issues or concerns. In order to open up discussion on any operational improvements via the GIS data, or to identify any updates that can be made, AMR and Akimeka held a brief conference call on December 5, 2017.

- 1. During the discussion there was overwhelming agreement that the data provided by Akimeka is working great for the dispatchers and first responders at AMR.
- 2. There were some areas that were discussed where searching for certain addresses will prompt a list of invalid addresses.
 - a. Through the discussion it was identified that the CAD system is aggregating various data sources since they are dispatching throughout the State. The data that Akimeka provides for the island of Oahu is working great, however since the neighbor islands are using various sources of data in different formats, the accuracy of that data is greatly in question and is likely not fully supportive of the search requirements in the CAD.
- 3. A final topic of discussion was on training for the AMR dispatcher. Joe from AMR who was on the call, took this as an action item to prepare training material for searching criteria, especially intersections. Akimeka volunteered that they can make themselves available to collaborate on the training material if needed.
- 4. There are no follow up calls scheduled at this time, however Akimeka informed that any issues or improvements identified will be looked at immediately and to send the requests as they are identified.

December 1, 2018 - December 31, 2018

4. E9-1-1 OAHU CIVILIAN DATABASE SYNCHRONIZATION

(<u>Reference:</u> NENA 71-501, Version 1.1 – NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI)

Next Scheduled Database Synchronization Report – January 2019

AUDIT SUMMARY RESULTS - 2018 - 2019 -- TBA

AUDIT SUMMARY RESULTS - JANUARY 1, 2019 MSAG VS OCTOBER 1, 2018 MSAG -- TBA

AUDIT SUMMARY RESULTS-JANUARY 1, 2019 MSAG VS OCTOBER 1, 2017 MSAG CONTINUED

INVALID MSAG STREETS AND ADDRESS RANGES - ESN X99 RECORDS -- TBA

AUTOMATIC LOCATION IDENTIFICATION (ALI) DATABASE DISCREPANCIES -- TBA